REMARKS

This communication is intended as a full and complete response to the non-final Office Action mailed February 28, 2005. In the Office Action, the Examiner notes that Claims 1-15 and 17-20 are pending and rejected. By this response, the Applicants have amended claims 1, 7 and 14, and added new claim 21. The amendments and the newly added claim are fully supported by the Specification, drawings and originally-filed claims. For example, the amendments to claims 1 and 14 are supported at least by original claim 6 and by page 9, lines 11-15 of the Specification. The amendments to claim 7 are to clarify the claim language. New claim 21 is supported at least by original claims 1 and 7. Thus, no new matter has been introduced, and the Examiner is respectfully requested to enter the amendments.

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated or obvious under 35 U.S.C. §102 or §103. Thus, the Applicants believe that all of these claims are now in allowable form.

It is to be understood that the Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to the Applicants' subject matter recited in the pending claims. Further, the Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

35 U.S.C. §102(e) Rejection of Claims 1-8, 10, 12-15 and 17-20

The Examiner has rejected Claims 1-8, 10, 12-15 and 17-20 under 35 U.S.C. §102(e) as being anticipated by Yang et al (U.S. Patent No. 6,005,620, hereinafter "Yang"). The rejection is respectfully traversed.

The Applicants independent claim 1 recites (emphasis added below):

> "1. A method comprising:
> receiving a first compressed video stream;
> determining a first encoding profile for the first compressed video stream;

encoding a second video stream in accordance with a particular encoding scheme to generate a second compressed video stream having a second encoding profile which approximately matches the first encoding profile;

splicing the second compressed video stream into the first compressed video stream to produce a spliced stream; and

pausing the first compressed video stream for a time that represents a duration of the second compressed video stream."

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983)) (emphasis added). The Yang reference fails to disclose each and every element of the claimed invention, as arranged in claim 1.

Specifically, the Yang reference fails to teach or suggest "encoding a second video stream in accordance with a particular encoding scheme to generate a second compressed video stream having a second encoding profile which approximately matches the first encoding profile," and also "pausing the first compressed video stream for a time that represents a duration of the second compressed video stream" as recited in the amended claim 1.

Yang discloses a method which is directed to multiplexing video streams in a manner that manages bandwidth. Specifically, Yang discloses a method by which a non-compressed live video signal (in one embodiment of a plurality of such non-compressed live video signals) is compressed at a compression rate that depends on, among other things, a complexity determination of a pre-compressed video signal. Specifically, Yang discloses (emphasis added below):

"the bandwidth available for one of the live video signals is determined in accordance with the following equation:

$BW_I = C_I / C_{SUM} * BW_{LIVE}$,

where BW_I is the bandwidth available for the "Ith" of N video signals, where C_I is the complexity factor for the Ith video signal, where C_{SUM} is the sum of all the complexity factors determined at step 104, and where BW_{LIVE} is the bandwidth available for all of the live video signals.

> At step 108, the bandwidth BW_I for the current video signal determined in step 106 is converted to a corresponding compression factor, in the form of a quantizing factor, which is then transmitted to the corresponding RTE 52 to specify the rate of compression of the video signal by that RTE 52." (column 4, lines 49-64)

Thus, the compression rate applied to a particular non-compressed live video signal in the Yang reference is derived from a bandwidth allocated to that particular live video signal according to the equation disclosed in the Yang reference (and shown in the portion of the Yang reference recited above). Yang therefore applies a compression rate to the particular non-compressed live video signal based on (i) the total available bandwidth of the system minus the bandwidth of the pre-compressed video signal, i.e. BW_{LIVE}, (ii) and the relative complexity of the particular live video signal in comparison to other live video signals, i.e. C_I/C_{SUM}. Moreover, Yang does not teach or suggest "encoding a second video stream in accordance with a particular encoding scheme to generate a second compressed video stream having a second encoding profile which approximately matches the first encoding profile" as recited in claim 1.

The Examiner alleges that (emphasis added below):

> "Figure 4 of Yang et al discloses that encoding 52 of a second video stream 32 is in accordance to the profile 40 of the first compressed video stream to produce a spliced stream 34. That is, the video streams are approximately matched in terms of bit rates, compression factors, etc." (page 4, last two lines, to page 5, first three lines, of the Office Action mailed on 2/28/2005)

The Applicants respectfully disagree, and submit that the Examiner has incorrectly concluded that "the video streams are approximately matched" necessarily follows from "encoding 52 of a second video stream 32 is in accordance to the profile 40 of the first compressed video stream." However, this is not true. That a first video stream is allegedly encoded in accordance with the encoding of a second video stream does not necessarily mean that the first and second video streams have matching encoding profiles. As recited above, the Yang reference discloses that live video stream is encoded according to a bandwidth allocation which is done according a very specific mathematical formula (and as such is not open to interpretation). Furthermore, the very specific formula of Yang does not recite that the live video stream is encoded to have an

encoding profile that approximately matches that of the pre-compressed video stream. The complexity of the pre-compressed video stream only factors indirectly into the very specific formula in the form of the variable BW_{LIVE}.

The Yang reference further discloses (emphasis added below):

> "From the above description, it should be understood that each of the live video signals is examined for complexity on a frame-by-frame basis, and the bandwidth available for the live video signals is dynamically allocated, on a frame-by-frame basis, depending upon the complexity of each live video signal. Consequently, live video signals having more complex frames are allocated more bandwidth than signals having less complex video frames to ensure that the overall image resolution for the live video signals is maximized for the limited overall bandwidth available for the system 10." (column 5, lines 8-18)

Thus, the Yang reference is primarily concerned with choosing an encoding profile for a particular live video signal to allocate bandwidth proportionately to the more complex of a plurality of live video signals.

Moreover, the Yang reference fails to teach or suggest "pausing the first compressed video stream for a time that represents a duration of the second compressed video stream" as recited in the amended claim 1. The Examiner alleges that Yang teaches:

> "pausing the first compressed video stream 30 for the time during which the second compressed video stream 52 is multiplexed as the output video stream 38" (page 3, last two lines, to page 4, first line, of the Office Action mailed on 2/28/2005).

However, the Applicant respectfully disagrees. Yang provides no teaching or suggestion of "pausing the first compressed video stream for a time that represents a duration of the second compressed video stream" as recited in the amended claim 1. Furthermore, the Examiner provides no evidence by way of citing the Yang reference to support the above allegation.

Therefore, Yang fails to disclose each and every element of the claimed invention, as arranged in the Applicants' independent Claim 1. Thus, Claim 1 is not anticipated by Yang and is patentable under 35 U.S.C. §102. Furthermore, since Claim

14 includes relevant limitations similar to those discussed above in regards to Claim 1, Claim 14 is also not anticipated by Yang and is patentable under 35 U.S.C. §102. Moreover, Claims 2-8, 10, 12-13, 15, and 17-20 depend, either directly or indirectly, from independent Claims 1 and 14, and recite additional limitations thereof. As such and at least for the same reasons as discussed above, these dependent claims are also not anticipated by Yang and are patentable under 35 U.S.C. §102.

35 U.S.C. §103(a) Rejection of Claims 9 and 11

The Examiner has rejected Claims 9 and 11 as being obvious and unpatentable over Yang under the provisions of 35 U.S.C. §103(a). The Applicants respectfully traverse the rejection.

Claims 9 and 11 depend from allowable base Claim 1 (either directly or indirectly). Consequently, Claims 9 and 11 are themselves allowable. As such, the Applicants submit that Claims 9 and 11 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections of claims 9 and 11 under 35 U.S.C. §103(a) be withdrawn.

New Claim 21

New Claim 21 recites (emphasis added below):

"21. A method, comprising:
receiving a first compressed video stream;
determining a first encoding profile for the first compressed video stream;
receiving a control signal indicative of a time period within which a splicing of a second compressed video stream into the first compressed video stream is to be performed;
initiating encoding of the second video stream in response to receiving the control signal, the encoding of the second video stream being in accordance with a particular encoding scheme to generate a second compressed video stream having a second encoding profile which approximately matches the first encoding profile;
splicing the second compressed video stream into the first compressed video stream to produce a spliced stream; and

pausing the first compressed video stream for a time that represents a duration of the second compressed video stream."

New claim 21 is patentable over the cited references for at least the reasons given above, and also because none of the cited references teaches or suggests "receiving a control signal indicative of a time period within which a splicing of a second compressed video stream into the first compressed video stream is to be performed" and "initiating encoding of the second video stream in response to receiving the control signal".

CONCLUSION

Thus, the Applicants submit that all the claims presently in the application are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

5/31/05

Eamon J. Wall, Attorney
Reg. No. 39,414
(732) 530-9404

Moser, Patterson & Sheridan, LLP
Attorneys at Law
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702